

CLAIMS :-

1. A recording medium for ink jet printing comprising:
a substrate coated with at least one ink receiving layer comprising a
5 particulate polymer having film forming temperatures between 60 to
140 °C and a binder.
2. The recording medium according to claim 1, wherein said
substrate is selected from the group consisting of paper,
10 transparency materials, fabrics, canvas, cloth, transfer materials
and polymeric substrates.
3. The recording medium according to claim 2, wherein said paper
is selected from the group consisting of high wet-strength paper,
15 tracing paper, heavy weight paper, cardboard, label grade
paper, treated paper, pigmented paper, resin coated paper,
polyethylene coated paper and synthetic paper.
4. The recording medium according to claim 2, wherein said
20 polymeric substrate is selected from the group consisting of
cellulose acetates, polyesters, poly(propylene) and poly(vinyl
chloride).
5. The recording medium according to claim 1, wherein said ink
25 receiving layer includes at least one binder selected from the
group consisting of gelatin, poly(vinyl alcohol), poly(vinyl

pyrrolidone), carbohydrates, gums, treated carbohydrates, hydroxyethyl cellulose, carboxymethyl cellulose, acrylic polymers, casein, starch and mixtures thereof.

5 6. The recording medium according to claim 5, wherein said ink receiving layer comprises poly (vinyl alcohol) having a degree of hydrolysis of at least 90%.

10 7. The recording medium according to claim 5, wherein said ink receiving layer further includes one or more additives selected from the group consisting of inorganic pigments, fillers, silica, alumina, clays, calcium carbonate, dye fixing agents, cationic polymers, surfactants, cross linking agents, optical brighteners and light stabilizers.

15 8. The recording medium according to claim 1, wherein said particulate polymer has a particle size between 1 and 50 μ m.

20 9. The recording medium according to claim 1, wherein said particulate polymer is selected from the group consisting of low density polyethylene and copolymers of ethylene with ethylenically unsaturated monomers.

25 10. The recording medium according to claim 9, wherein said ethylenically unsaturated monomers comprise acrylic acid.

11. The recording medium according to claim 1, wherein said particulate polymer comprises low density polyethylene particles having an average particle size of approximately 25 μ m.

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12. The recording medium according to claim 1, wherein said ink receiving layer has a coating weight from 5 to 50 gm⁻².

13. An ink jet printing method comprising the steps of:

- 10 a. printing on to a receiving medium which comprises a substrate coated with at least one ink receiving layer comprising polymeric particles having film forming temperatures between 60 to 140 °C and a binder; and
- 15 b. heating the printed image to form a stable image-protecting coating.

14. A method according to claim 13, wherein said ink receiving layer is coated as an aqueous formulation on top of said substrate.

20 15. A method according to claim 13, wherein the printed image is heated under pressure to form the protective coating.

16. A method according to claim 13, wherein the printed image is heated by passing through a laminator.

17. A method according to claim 16, wherein an inert sheet is in contact with said ink receiving layer and passed through said laminator.

5 18. A method according to claim 17, wherein said inert sheet is selected from the group consisting of release papers, release liners, silicone release liners, casting films, casting papers and polyester films.

10 19. A method according to claim 17, wherein said inert sheet is used to impart a high gloss, embossed pattern or security symbol to the final image.

15 20. A method according to claim 13, wherein said binder is a hydrophilic binder.

21. A method according to claim 20, wherein said hydrophilic binder is polyvinyl alcohol.

20 22. A method according to claim 13, wherein said particulate polymer comprises low density polyethylene.

25 23. A method according to claim 22, wherein said particulate polymer comprises low density polyethylene particles having an average particle size of approximately 25 μ m.

24. A method according to claim 13, wherein the inks used to print the image on said receiving layer are selected from the groups consisting of aqueous inks, mineral oil inks and inks based on organic solvents.

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